REMARKS

Applicants respectfully request further examination and reconsideration in view of the above amendments and the arguments set forth fully below. Claims 26-33 were previously pending in this Application. Within the Office Action, Claims 1-33 have been rejected. Claims 1-25 have previously been canceled. By the above amendment, Claim 26 has been amended. Claims 26-33 are now pending in the application.

Rejections under 35 U.S.C. §103(a)

Within the Office Action, Claims 26-33 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Japanese Patent No. 61-279,805 to Itaru (hereinafter referred to as "Itaru") in view of either U.S. Patent No. 6,111,999 to Espindola et al. (hereinafter referred to as "Espindola") or U.S. Patent No. 5,883,990 to Sasaoka et al. (hereinafter referred to as "Sasaoka") and further in view of U.S. Patent No. 4,607,912 to Burns et al. (hereinafter referred to as "Burns"). Though the Office Action recites that Claims 1-33 are rejected under 35 U.S.C. §103 as being unpatentable over Japanese Kokai 61-279,805, it seems clear from the discussion that follows that the patent referred to is Japanese Patent No. 61-279,805 to Itaru, and this amendment is fully responsive. The applicants respectfully disagree with this rejection. Claims 1-25 have previously been canceled.

Itaru teaches a filter for stabilizing a fiber system that uses a fiber with a core, a clad, and two low refractive index parts located within the clad, wherein Fig. 1 of Itaru shows that the two low refractive index parts are located on opposite sides of the core. Specifically, Itaru teaches a method which heats and stretches "a fiber 21 having the low refractive index parts 25." Itaru gives a specific detailed description that "mode coupling arises between the electric field spreading in equal directions around the core 23 and the electric field around the region *sandwiched* by the stretched parts 22 and the outside of the clad 24." Therefore, Itaru teaches the use of a non-cylindrically symmetrical fiber design in order to produce the filter.

Espindola teaches a device that modifies a fiber having a core, an inner cladding, and an outer cladding through the use of variable refractive index regions comprised of a material with a refractive index different from that of the core or the cladding and whose refractive index is modifiable in a non-permanent manner. Espindola teaches methods of varying the refractive index such as changing the length, shape, or size of the region, using different concentrations of dopants, modifying the temperature, or applying electric or magnetic fields. Espindola does not teach heating and stretching the fiber to permanently modify its characteristics.

Sasaoka teaches a device that uses a fiber comprised of a core and a double cladding structure having an inner cladding and an outer cladding. The indices of the inner cladding and outer cladding are chosen in order to decrease the coupling of light from the core to the cladding mode or to higher-order modes, thereby confining more of the light to the core of the fiber. Sasaoka teaches photowriting a grating in the core within the double cladding structure. Sasaoka does not teach heating and stretching the double cladding fiber structure.

Burns teaches a device that thermally tapers a highly birefringent optical fiber which polarizes light transmitted through the fiber. Birefringent optical fibers either use an elliptical fiber core or a circular core which is strained as the fiber is drawn in the production stage. Therefore, Burns teaches heating and stretching a birefringent optical fiber in order to produce a polarization filter which only transmits a particular polarization of light. Burns does not teach the heating and stretching of an optical fiber to produce a wavelength-dependent intensity filter.

Accordingly, neither Itaru, Espindola, Sasaoka, Burns, nor the combination of Itaru with the other cited patents teach manufacturing an all fiber wavelength-dependent optical intensity filter from a fiber having a core, cylindrically-symmetrical inner cladding, and outer cladding by clamping the fiber, heating the fiber, and then stretching the fiber until a predetermined characteristic is achieved.

In contrast to the teachings of Itaru, Espindola, Sasaoka, Burns and their combination, the present invention is directed to a method of manufacturing an all fiber wavelength-dependent optical intensity filter, which begins with an optical fiber having a core, cylindrically-symmetrical inner cladding and outer cladding. The method of manufacturing includes holding a length of an appropriate optical fiber between two clamps, heating the optical fiber until a predetermined characteristic of the optical fiber is achieved. As described above, neither Itaru, Espindola, Sasaoka, Burns nor their combination teach manufacturing an all fiber wavelength-dependent optical intensity filter from a fiber having a core, cylindrically-symmetrical inner cladding, and outer cladding by clamping the fiber, heating the fiber, and then stretching the fiber until a predetermined characteristic is achieved.

The independent Claim 26 is directed to a method of making an all-fiber wavelength-dependent optical intensity filter, which begins with an optical fiber having a core, a cylindrically-symmetrical inner cladding, and an outer cladding. The method of Claim 26 comprises holding the optical fiber between a first clamp and a second clamp, heating a length of the optical fiber between the first clamp and the second clamp and stretching the optical fiber by further separating the first clamp and the second clamp until a predetermined characteristic is achieved. As described above, neither Itaru, Espindola, Sasaoka, Burns, nor their combination

teach the steps of heating and stretching of the optical fiber to create a wavelength-dependent intensity filter. For at least these reasons, the independent Claim 26 is allowable over the teachings of Itaru, Espindola, Sasaoka, Burns, and their combination.

Claims 27-33 are all dependent on the independent Claim 26. As discussed above, the independent Claim 26 is allowable over the teachings of Itaru, Espindola, Sasaoka, Burns, and their combination. Accordingly, Claims 27-33 are also allowable as being dependent on an allowable base claim.

For the reasons given above, the Applicants respectfully submit that Claims 26-33 are now in a condition for allowance, and allowance at an early date would be appreciated. Should the Examiner have any questions or comments, he is encouraged to call the undersigned at (408) 530-9700 to discuss the same so that any outstanding issues can be expeditiously resolved.

Respectfully submitted,
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